



Word Problems – No Problem!

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Curriculum Area	Mathematics
Subject Area	Problem-Solving
Grade Level	3 rd Grade
Learning Objectives	<ul style="list-style-type: none"> • The student will create problems involving multiplication. • The student will solve problems involving multiplication. • The student will recall the multiplication facts through the nines table.
Correlation to the SOL	Math 3.9, 3.10 English 3.1, 3.2 C/T 5.2, 5.4
Video/Technology Hardware/Software Needed	<p>For class: Multimedia computer with Internet connection Computer Projection System</p> <p>For each student: Multimedia computer connected to a printer Drawing software (such as <i>KidPix</i> or <i>ClarisWorks</i>) Presentation software (such as <i>KidPix</i> or <i>HyperStudio</i>)</p> <p>Web Site: <i>Math for Kids: A Medieval Adventure in Problem Solving</i> http://tqjunior.thinkquest.org/4471 </p>
Materials Required	<p>For each student: Teacher-created worksheet of simple multiplication word problems Teacher-created storyboard worksheet with three spaces</p>
Procedures/Activities	<ol style="list-style-type: none"> 1. Review problem solving techniques with the students using a computer projection system and the <i>Math for Kids: A Medieval Adventure in Problem Solving</i> Web site. Work through the steps of solving problem #13 with the class. The class can work through additional problems together. (Note: Problems 10, 16, 18, and 22 also deal with multiplication.) Discuss strategies for problem solving. 2. Give students the teacher-created worksheet of simple word problems involving multiplication. Divide the class into small learning groups and

	<p>have them work through the problems together. Each student will be responsible for filling out their own worksheet, however, and turning it in for evaluation.</p> <ol style="list-style-type: none"> Go over solutions to some of the problems, emphasizing that in order to receive full credit for solving a problem the students must have the problem stated correctly, have the correct solution, and must use the correct unit in the solution. Students should finish worksheets and turn them in to teacher. Tell the students that they are going to write problems and share them with the class. Discuss ways of presenting their problems to the class. If students have not had previous experience with presentation software, introduce them to <i>KidPix</i> or whichever software is available and show them how to create a slide show. Explain that they will be creating a three-slide presentation. The 1st slide will state the problem in words and illustrate it, the second slide will state the problem with numbers (and illustration), and the third slide will state the solution (and illustration) (e.g., First: Tommy bought a Matchbox car for each of his friends. He has five friends. How many cars did he buy? Second: $1 \times 5 =$; Third: $1 \times 5 = 5$). Review the evaluation rubric with students. Have students brainstorm different things about which they could write a math problem. (Note: If using <i>KidPix</i>, it may be helpful to give students a printout of the different stamps to give them some ideas that could easily be illustrated.) Have each student write their problem on the teacher-created storyboard worksheet so they can pre-plan their slide show. If students have not used the available drawing program, spend time introducing the students to the various tools and demonstrating what they do, making sure to use and reinforce the correct terminology. After the students have become comfortable with the software, assist the students in creating a slide presentation, importing the graphics they created as needed. After completing the slide show, each child could then present his/her problem to the class, giving the class time to solve the problem. They then verify the answer by showing the last slide. Discuss practical uses of multiplication. The teacher may also print the first slide from each student's problem, laminate them, and compile them into a booklet that students can use to read and solve problems (with a grease pen).
Content Assessment	Assess each word problem based on the following criteria: One point for correctly writing problem, one point for the correct solution, and one point for using the correct unit.
Technology Integration Assessment	See attached rubric
Extensions	<p>Language Arts: To continue the use of <i>KidPix</i> presentation software, create a simple book report using the slide show feature and present it to the class.</p> <p>Math: Share the slide programs/booklet with other classes, having those students solve the problems.</p>

Slide Show Presentation Rubric:

	Excellent (4 pts.)	Well-done (3 pts.)	Average (2 pts.)	Poor (1 pt.)	Total
Technical	Three slides in proper order with nice transitions and other extras such as sound effects	Three slides in proper order with nice transitions	Three slides in proper order	Less than three slides or not in proper order	
Content	All required information is included with extra embellishments that do not take away from presentation	All required information is included	Most required information is included	Information is incomplete	
Creativity	Illustrations are clever and captivating; wording of problem is also clever	Illustrations are clever OR wording of problem is clever	Illustrations are appropriate AND wording is clear	Illustrations are inappropriate OR wording is unclear	